

**CLAIMS**

What is claimed is:

1. A method for controlling a removable media device coupled to a computer system by way of a bus interface, the computer system having system firmware, the method comprising the step of:

5 providing one or more abstraction layers in the system firmware that employ interrupt 13 functions to allow a program to communicate with the removable media device.

2. The method recited in Claim 1 wherein the removable media employed with the removable media device comprises a device driver that calls the abstraction layer in the system firmware.

3. The method recited in Claim 1 wherein the removable media is used to perform recovery of contents of a device coupled to the computer.

4. The method recited in Claim 2 wherein the removable media is used to perform recovery of contents of a device coupled to the computer.

5. The method recited in Claim 1 wherein the removable media device is selected from the group including a CD-ROM device, a DVD device, or a magneto-optical device.

6. The method recited in Claim 1 wherein the program comprises an operating system or application.

7. The method recited in Claim 1 wherein the abstraction layer comprises interrupt 13 functions 40h and above that allow the program to access the removable media device in its native mode.

8. The method recited in Claim 7 wherein the abstraction layer comprises interrupt 13 functions 1-3Fh that allow the program to access the removable media device as a floppy drive.

09643040-0000

9. The method recited in Claim 1 wherein the bus interface is selected from the group including a Universal Serial Bus (USB™), an IEEE-1394 bus, a Bluetooth™ bus, an ATA bus, an ATAPI bus, Peripheral Component Interconnect (PCI®) bus, Infiniband™ bus, or a SCSI bus.

10. Apparatus comprising:  
 a computer comprising system firmware and a removable media device; and  
 wherein the system firmware includes one or more abstraction layers that  
 employ interrupt 13 functions to allow a program to communicate with the removable  
 5 media device.

11. The apparatus recited in Claim 10 wherein the removable media employed with the removable media device comprises a device driver that calls the abstraction layer in the system firmware.

12. The apparatus recited in Claim 10 wherein the removable media is used to perform recovery of contents of a device coupled to the computer.

13. The apparatus recited in Claim 12 wherein the removable media is used to perform recovery of contents of a device coupled to the computer.

14. The apparatus recited in Claim 10 wherein the removable media device is selected from the group including a CD-ROM device, a DVD device, or a magneto-optical device.

15. The apparatus recited in Claim 10 wherein the program comprises an operating system or application.

16. The apparatus recited in Claim 10 wherein the abstraction layer comprises interrupt 13 functions 40h and above that allow the program to access the removable media device in its native mode.

17. The apparatus recited in Claim 16 wherein the abstraction layer comprises interrupt 13 functions 1-3Fh that allow the program to access the removable media device as a floppy drive.

18. The apparatus recited in Claim 10 wherein the bus interface is selected from the group including a Universal Serial Bus (USB™), an IEEE-1394 bus, a Bluetooth™ bus, an ATA bus, an ATAPI bus, Peripheral Component Interconnect (PCI®) bus, Infiniband™ bus, or a SCSI bus.

1. **Introduction**  
 2. **Background**  
 3. **Methodology**  
 4. **Results**  
 5. **Discussion**  
 6. **Conclusion**  
 7. **References**  
 8. **Appendix**  
 9. **Notes**  
 10. **Tables**  
 11. **Figures**  
 12. **Supplementary Materials**  
 13. **Author Contributions**  
 14. **Conflicts of Interest**  
 15. **Acknowledgments**  
 16. **References**  
 17. **Appendix**  
 18. **Notes**  
 19. **Tables**  
 20. **Figures**  
 21. **Supplementary Materials**  
 22. **Author Contributions**  
 23. **Conflicts of Interest**  
 24. **Acknowledgments**  
 25. **References**  
 26. **Appendix**  
 27. **Notes**  
 28. **Tables**  
 29. **Figures**  
 30. **Supplementary Materials**  
 31. **Author Contributions**  
 32. **Conflicts of Interest**  
 33. **Acknowledgments**  
 34. **References**  
 35. **Appendix**  
 36. **Notes**  
 37. **Tables**  
 38. **Figures**  
 39. **Supplementary Materials**  
 40. **Author Contributions**  
 41. **Conflicts of Interest**  
 42. **Acknowledgments**  
 43. **References**  
 44. **Appendix**  
 45. **Notes**  
 46. **Tables**  
 47. **Figures**  
 48. **Supplementary Materials**  
 49. **Author Contributions**  
 50. **Conflicts of Interest**  
 51. **Acknowledgments**  
 52. **References**  
 53. **Appendix**  
 54. **Notes**  
 55. **Tables**  
 56. **Figures**  
 57. **Supplementary Materials**  
 58. **Author Contributions**  
 59. **Conflicts of Interest**  
 60. **Acknowledgments**  
 61. **References**  
 62. **Appendix**  
 63. **Notes**  
 64. **Tables**  
 65. **Figures**  
 66. **Supplementary Materials**  
 67. **Author Contributions**  
 68. **Conflicts of Interest**  
 69. **Acknowledgments**  
 70. **References**  
 71. **Appendix**  
 72. **Notes**  
 73. **Tables**  
 74. **Figures**  
 75. **Supplementary Materials**  
 76. **Author Contributions**  
 77. **Conflicts of Interest**  
 78. **Acknowledgments**  
 79. **References**  
 80. **Appendix**  
 81. **Notes**  
 82. **Tables**  
 83. **Figures**  
 84. **Supplementary Materials**  
 85. **Author Contributions**  
 86. **Conflicts of Interest**  
 87. **Acknowledgments**  
 88. **References**  
 89. **Appendix**  
 90. **Notes**  
 91. **Tables**  
 92. **Figures**  
 93. **Supplementary Materials**  
 94. **Author Contributions**  
 95. **Conflicts of Interest**  
 96. **Acknowledgments**  
 97. **References**  
 98. **Appendix**  
 99. **Notes**  
 100. **Tables**  
 101. **Figures**  
 102. **Supplementary Materials**  
 103. **Author Contributions**  
 104. **Conflicts of Interest**  
 105. **Acknowledgments**  
 106. **References**  
 107. **Appendix**  
 108. **Notes**  
 109. **Tables**  
 110. **Figures**  
 111. **Supplementary Materials**  
 112. **Author Contributions**  
 113. **Conflicts of Interest**  
 114. **Acknowledgments**  
 115. **References**  
 116. **Appendix**  
 117. **Notes**  
 118. **Tables**  
 119. **Figures**  
 120. **Supplementary Materials**  
 121. **Author Contributions**  
 122. **Conflicts of Interest**  
 123. **Acknowledgments**  
 124. **References**  
 125. **Appendix**  
 126. **Notes**  
 127. **Tables**  
 128. **Figures**  
 129. **Supplementary Materials**  
 130. **Author Contributions**  
 131. **Conflicts of Interest**  
 132. **Acknowledgments**  
 133. **References**  
 134. **Appendix**  
 135. **Notes**  
 136. **Tables**  
 137. **Figures**  
 138. **Supplementary Materials**  
 139. **Author Contributions**  
 140. **Conflicts of Interest**  
 141. **Acknowledgments**  
 142. **References**  
 143. **Appendix**  
 144. **Notes**  
 145. **Tables**  
 146. **Figures**  
 147. **Supplementary Materials**  
 148. **Author Contributions**  
 149. **Conflicts of Interest**  
 150. **Acknowledgments**  
 151. **References**  
 152. **Appendix**  
 153. **Notes**  
 154. **Tables**  
 155. **Figures**  
 156. **Supplementary Materials**  
 157. **Author Contributions**  
 158. **Conflicts of Interest**  
 159. **Acknowledgments**  
 160. **References**  
 161. **Appendix**  
 162. **Notes**  
 163. **Tables**  
 164. **Figures**  
 165. **Supplementary Materials**  
 166. **Author Contributions**  
 167. **Conflicts of Interest**  
 168. **Acknowledgments**  
 169. **References**  
 170. **Appendix**  
 171. **Notes**  
 172. **Tables**  
 173. **Figures**  
 174. **Supplementary Materials**  
 175. **Author Contributions**  
 176. **Conflicts of Interest**  
 177. **Acknowledgments**  
 178. **References**  
 179. **Appendix**  
 180. **Notes**  
 181. **Tables**  
 182. **Figures**  
 183. **Supplementary Materials**  
 184. **Author Contributions**  
 185. **Conflicts of Interest**  
 186. **Acknowledgments**  
 187. **References**  
 188. **Appendix**  
 189. **Notes**  
 190. **Tables**  
 191. **Figures**  
 192. **Supplementary Materials**  
 193. **Author Contributions**  
 194. **Conflicts of Interest**  
 195. **Acknowledgments**  
 196. **References**  
 197. **Appendix**  
 198. **Notes**  
 199. **Tables**  
 200. **Figures**  
 201. **Supplementary Materials**  
 202. **Author Contributions**  
 203. **Conflicts of Interest**  
 204. **Acknowledgments**  
 205. **References**  
 206. **Appendix**  
 207. **Notes**  
 208. **Tables**  
 209. **Figures**  
 210. **Supplementary Materials**  
 211. **Author Contributions**  
 212. **Conflicts of Interest**  
 213. **Acknowledgments**  
 214. **References**  
 215. **Appendix**  
 216. **Notes**  
 217. **Tables**  
 218. **Figures**  
 219. **Supplementary Materials**  
 220. **Author Contributions**  
 221. **Conflicts of Interest**  
 222. **Acknowledgments**  
 223. **References**  
 224. **Appendix**  
 225. **Notes**  
 226. **Tables**  
 227. **Figures**  
 228. **Supplementary Materials**  
 229. **Author Contributions**  
 230. **Conflicts of Interest**  
 231. **Acknowledgments**  
 232. **References**  
 233. **Appendix**  
 234. **Notes**  
 235. **Tables**  
 236. **Figures**  
 237. **Supplementary Materials**  
 238. **Author Contributions**  
 239. **Conflicts of Interest**  
 240. **Acknowledgments**  
 241. **References**  
 242. **Appendix**  
 243. **Notes**  
 244. **Tables**  
 245. **Figures**  
 246. **Supplementary Materials**